

Health Physics Sample Records

Sample ID: 142504

Type: RLSSS

Type Detail: SAND

Status: APPROVED

Rasterized:

Description: 14060614BD 04 NORTH LAYDOWN # 7

Common

Resp Org: P4000 - PROJECT MANAGEMEN

Cross Ref Sample ID:

Priority: N

Contact: COOPER, TERRY L

Survey No:

Reference ID:

Accounting Subcode:

Unknown Mat: NO

Hazardous Mat: NO

Comments: COUNT TO MDA

Reviewed: DYNES, WILLIAM J

Date: 06/09/14 08:21

Comments: COUNT TO MDA

Origin

Mat. Size/Volume: 2150 GRAMS

Docmnt/MO/Act #:

Proposed Ship Date: 00/00/00 00:00

Description: NORTH LAYDOWN #7

Collection

Sample Tech: DYNES, WILLIAM J

Sample Date: 06/06/14 09:40

Count Time: 900 (secs.)

Tritium Req: No

Sample Size/Volume: 2150 GRAMS

Instructions: COUNT TO MDA

Comments: COUNT TO MDA

RLSSS

Exempt: No

Evaluated: No

Chem Notification: No

State Permit: No

Offsite Analysis: No

Effluent Permit: No

Container Surveyed: No

Cleared For Release: Yes

Container Evaluated: Yes

Form 212 Ready:

Location

Unit: NON-UNIT RE Area: MS

Elev: 100 Room:

Depth: (in.) Equip ID:

Stored By: ,

Date: 00/00/00 00:00

Sample Loc:

Other: COUNT TO MDA

Material Loc:

Health Physics Sample Records

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Rasterized:

Description: 14060614BD 04 NORTH LAYDOWN # 7

Analysis

Geometry	MCA ID	Quant.	Units	Method	FP/AP	Lab	Analysis By	Date	Mod ID	Mod Date
B_1L_marinelli_sand_	30421	2150	GR		.000		NEEBE, DAVID J	06/09/14 20:28		

Isotope	Mode	Activity	Activity Uncert.	LLD/MDA	% Abund.	Atom. No.	Comments	Mod Id	Mod Date
0 K-40	NT	8.705E-6	1.16E-6	☐	83.224%	40			
0 PB-212	NT	3.898E-7	1.422E-7	☐	3.727%	212			
0 BI-214	NT	4.16E-7	1.119E-7	☐	3.977%	214			
0 PB-214	NT	9.489E-7	1.723E-7	☐	9.072%	214			
0 BE-7	AP	6.5799E-7		☑	0.000%	7			
0 MN-54	AP	7.8493E-8		☑	0.000%	54			
0 MN-56	AP	2.9794E-8		☑	0.000%	56			
0 CO-57	AP	7.7832E-8		☑	0.000%	57			
0 CO-58	AP	1.1215E-7		☑	0.000%	58			
0 CO-60	AP	1.1639E-7		☑	0.000%	60			
0 SB-124	AP	8.9329E-8		☑	0.000%	124			
0 SB-125	FP	2.1238E-7		☑	0.000%	125			
0 CS-134	FP	4.4506E-8		☑	0.000%	134			
0 CS-137	FP	1.076E-7		☑	0.000%	137			

Analysis Review

Re-Analyze: No

Lic Rad Mat Present: No

Reviewed: COOPER, TERRY L

Date: 06/11/14 07:44

Hp Eng Rvw Req'd: Yes

Rad Mat Present: Yes

HP Notified Name:

Comments:

Health Physics Sample Records

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Rasterized:

Description: 14060614BD 04 NORTH LAYDOWN # 7

Review/Approve

HP Eng Review

Reviewed: COOPER, TERRY L

Date: 06/11/14 07:44

Comments:

Disposition

Disposition: OTHER

Result: Sample contains only natural isotopes

Remarks:

Final Approval

Approved: COOPER, TERRY L

Date: 06/11/14 07:44

Comments:

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*****
*          SONGS                      HEALTH PHYSICS REPORT          9-JUN-2014 20:19 *
*-----*
*                >>>> SAMPLE PARAMETERS <<<<<                *
*-----*
* Title       : 14060614BD 04 NORTH LAYDOWN # 7                    *
* ID          : 30421                      Acquisition date: 9-JUN-2014 20:16:09. *
* Start Time: 9-JUN-2014 20:16:00.                      *
* Stop Time: 9-JUN-2014 20:16:00.                      Counting System : U2GSP *
* Quantity   : 2.15000E+03 GR                      IHPS Sample Number: 142504 *
* Geometry   : B_1L_marinelli_sand_1                Analysis Library : HP_NATURAL *
*                               Operator: DAVID NEEBE *
*-----*
*                >>>> B #42-TP11663A PARAMETERS <<<<<                *
*-----*
* Elapsed Live Time : 0 00:03:00.41 Calibration : 9-JUN-2014 19:36: *
* Elapsed Real Time : 0 00:03:00.45 Energy Offset : -5.05220E-01 *
* Deadtime          : 0.0% Energy Slope : 5.00079E-01 *
* Activity Mult Factor: 1.00000E+00 Energy Tolerance: 1.00000 *
* Half Life Ratio   : 8.00000 Sensitivity : 5.00000 *
*-----*
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Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
1	238.55	44	52	1.63	478.04	473	13	36.5	4.71E+00	PB-212
1	295.29	40	3	2.63	591.50	585	13	18.2	2.53E-01	PB-214
1	351.96	41	10	1.26	704.82	700	10	21.4	2.66E-01	PB-214
1	609.38	23	4	1.62	1219.59	1215	9	26.9	6.06E-01	BI-214
1	1460.65	56	0	2.50	2921.94	2916	12	13.3	3.45E-01	K-40

Summary of Nuclide Activity
Sample ID : 30421

Page : 2
Acquisition date : 9-JUN-2014 20:16:09

Total number of lines in spectrum 5
Number of unidentified lines 0
Number of lines tentatively identified by NID 5 100.00%

Nuclide Type : natural

Nuclide	Hlife	Decay	Uncorrected uCi/GR	Decay Corr uCi/GR	Decay Corr 1-Sigma Error	1-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	8.705E-06	8.705E-06	1.160E-06	13.33	A
PB-212	10.64H	1.00	3.891E-07	3.898E-07	1.422E-07	36.48	A
BI-214	19.90M	1.06	3.928E-07	4.160E-07	1.119E-07	26.90	A
PB-214	26.80M	1.04	9.091E-07	9.489E-07	1.723E-07	18.16	A
Total Activity :			1.040E-05	1.046E-05			

Grand Total Activity : 1.040E-05 1.046E-05

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : 30421

Page : 3
Acquisition date : 9-JUN-2014 20:16:09

None

Flags: "T" = Tentatively associated

Interference Report
Sample ID : 30421

Page : 4
Acquisition date : 9-JUN-2014 20:16:09

No interference correction performed

Nuclide Type: natural

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected Decay Corr		1-Sigma
					uCi/GR	uCi/GR	
K-40	1460.83	56	10.67*	4.212E-01	8.705E-06	8.705E-06	13.33
PB-212	74.81	-----	10.50	1.150E+00	-----	Line Not Found	-----
	77.11	-----	17.70	1.239E+00	-----	Line Not Found	-----
	87.19	-----	6.27	1.579E+00	-----	Line Not Found	-----
	90.13	-----	1.86	1.662E+00	-----	Line Not Found	-----
	115.12	-----	0.59	2.085E+00	-----	Line Not Found	-----
	238.58	44	43.60*	1.805E+00	3.891E-07	3.898E-07	36.48
	300.03	-----	3.34	1.562E+00	-----	Line Not Found	-----
BI-214	76.86	-----	0.58	1.229E+00	-----	Line Not Found	-----
	79.29	-----	0.97	1.320E+00	-----	Line Not Found	-----
	609.31	23	46.10*	8.832E-01	3.928E-07	4.160E-07	26.90
	665.44	-----	1.56	8.131E-01	-----	Line Not Found	-----
	768.35	-----	4.88	7.078E-01	-----	Line Not Found	-----
	806.16	-----	1.23	6.754E-01	-----	Line Not Found	-----
	934.04	-----	3.16	5.861E-01	-----	Line Not Found	-----
	1120.27	-----	15.00	4.982E-01	-----	Line Not Found	-----
	1155.18	-----	1.69	4.860E-01	-----	Line Not Found	-----
	1238.11	-----	5.92	4.615E-01	-----	Line Not Found	-----
	1280.95	-----	1.47	4.510E-01	-----	Line Not Found	-----
	1377.66	-----	4.02	4.323E-01	-----	Line Not Found	-----
	1385.30	-----	0.78	4.311E-01	-----	Line Not Found	-----
	1401.48	-----	1.39	4.287E-01	-----	Line Not Found	-----
	1407.97	-----	2.48	4.277E-01	-----	Line Not Found	-----
	1509.22	-----	2.19	4.165E-01	-----	Line Not Found	-----
	1583.22	-----	0.72	4.120E-01	-----	Line Not Found	-----
1661.26	-----	1.15	4.103E-01	-----	Line Not Found	-----	
1729.58	-----	3.05	4.114E-01	-----	Line Not Found	-----	
1764.49	-----	15.90	4.128E-01	-----	Line Not Found	-----	
1847.41	-----	2.12	4.187E-01	-----	Line Not Found	-----	
PB-214	53.17	-----	1.10	2.929E-01	-----	Line Not Found	-----
	74.81	-----	6.52	1.150E+00	-----	Line Not Found	-----
	77.11	-----	11.00	1.239E+00	-----	Line Not Found	-----
	87.19	-----	3.88	1.579E+00	-----	Line Not Found	-----
	90.13	-----	1.15	1.662E+00	-----	Line Not Found	-----
	241.92	-----	7.46	1.790E+00	-----	Line Not Found	-----
	258.94	-----	0.55	1.718E+00	-----	Line Not Found	-----
	295.09	40	19.20*	1.579E+00	9.091E-07	9.489E-07	18.16
	351.87	41	37.10	1.395E+00	5.453E-07	5.692E-07	21.38
	785.83	-----	1.09	6.925E-01	-----	Line Not Found	-----
839.00	-----	0.59	6.497E-01	-----	Line Not Found	-----	

Flag: "*" = Keyline

Minimum Detectable Activity Report
Sample ID : 30421

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Acquisition date : 9-JUN-2014 20:16:09

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/GR)
BE-7	3.	477.61	6.5799E-07
MN-54	1.	834.83	7.8493E-08
MN-56	0.	846.81	2.9794E-08
CO-57	14.	122.06	7.7832E-08
CO-58	3.	810.79	1.1215E-07
CO-60	1.	1332.50	1.1639E-07
SB-124	3.	602.73	8.9329E-08
SB-125	3.	427.88	2.1238E-07
CS-134	0.	604.71	4.4506E-08
CS-137	3.	661.66	1.0760E-07